

1. (Cancelled)

2. (Amended) A method for forming an ONO stack of a floating gate transistor with a first layer of silicon dioxide formed on the floating gate and a layer of silicon nitride formed on the first silicon dioxide layer, comprising:

forming a second silicon dioxide layer by thermally depositing an oxide layer on the silicon nitride layer; and

annealing the ONO stack;

wherein the annealing is performed in a batch furnace at temperature range of 800 to 1150 deg Celsius for 300 seconds to 1800 seconds.

3. The method of Claim 2, wherein the annealing is performed in the batch furnace with a gas mixture of 5% to 100% of NO, with argon as a carrier gas.

4. The method of Claim 2, wherein the annealing is performed in the batch furnace with the gas mixture of 5% to 100% of NO with nitrogen as a carrier gas.

5. The method of Claim 2, wherein the annealing of is performed in the batch furnace with the gas mixture of 5% to 100% of NO with oxygen as a carrier gas.

6. The method of Claim 2, wherein the annealing is performed in the batch furnace with the gas mixture of 5% to 100% of NO with argon, nitrogen and oxygen as carrier gases.

7. The method of Claim 2, wherein the annealing is performed in the batch furnace with the gas mixture of 5% to 100% of N<sub>2</sub>O with nitrogen as a carrier gas.

8. The method of Claim 2, wherein the annealing is performed in the batch furnace with the gas mixture of 5% to 100% of N<sub>2</sub>O with oxygen as a carrier gas.

9. (Amended) The method of Claim 2, wherein the annealing of the ONO stack is performed in the batch furnace with the gas mixture of 5% to 100% of N<sub>2</sub>O with argon as a carrier gas.

10. (Amended) The method of Claim 2, wherein the annealing of the ONO stack is performed in the batch furnace with the gas mixture of 5% to 100% of N<sub>2</sub>O with argon, nitrogen and oxygen as a carrier gas.

11. (Amended) A method for forming an ONO stack of a floating gate transistor with a first layer of silicon dioxide formed on the floating gate and a layer of silicon nitride formed on the first silicon dioxide layer, comprising:

forming a second silicon dioxide layer by thermally depositing an oxide layer on the silicon nitride layer; and

annealing the ONO stack;

wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool at a temperature range of 700 to 1100 deg Celsius for one second to 120 seconds.

12. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of NO, with argon as a carrier gas.

AW OFFICES OF  
JERVEN MORRILL

METRO DRIVE  
ITE 700  
N JOSE, CA 95110  
(08) 453-9200  
X (408) 453-7979

13. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of NO, with nitrogen as a carrier gas.
14. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of NO, with oxygen as a carrier gas.
15. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of NO, with carrier gases argon, nitrogen and oxygen.
16. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of N<sub>2</sub>O, with nitrogen as a carrier gas.
17. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of N<sub>2</sub>O, with oxygen as a carrier gas.
18. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of N<sub>2</sub>O, with argon as a carrier gas.
19. The method of Claim 11, wherein the annealing is performed in a single wafer Rapid Thermal Annealing tool with a gas mixture of 1% to 100% of N<sub>2</sub>O, with carrier gases argon, nitrogen and oxygen.
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)